Terrestrial Animal Health Standards Commission Report September 2015

CHAPTER 12.10.

INFECTION WITH *BURKHOLDERIA MALLEI* (GLANDERS)

Article 12.10.1.

General provisions

~~Most glanders susceptible animals are equids.~~ Equids are the major hosts and reservoirs of glanders although s~~S~~cientific data are not available ~~for~~ on the occurrence of *infection* in zebras. Camelids and various carnivores including bears, canids and felids can also be infected but play no significant ~~epidemiological~~ role in the epidemiology of the disease. Glanders is a significant and potentially fatal zoonotic disease ~~with fatal outcome if not treated in a timely manner~~.

For the purposes of the *Terrestrial Code*, glanders is defined as an *infection* of equids with *Burkholderia mallei* ~~in an equid~~ with or without the presence of clinical signs.

~~The chapter deals not only with the occurrence of clinical signs caused by *B. mallei*, but also with the presence of *infection* with *B. mallei* in the absence of clinical signs.~~

The following defines the occurrence of ~~an~~ *infection* with *B. mallei*:

1) *B. mallei* has been isolated from a sample from an equid; or

2) antigen or genetic material specific to *B. mallei* has been identified in a sample from an equid showing clinical or pathological signs consistent with glanders, or epidemiologically linked to a confirmed or suspected *outbreak* of glanders, or giving cause for suspicion of previous contact with *B. mallei*; or

3) antibodies specific to *B. mallei* have been identified by a testing regime appropriate to the species in a sample from an equid showing clinical or pathological signs consistent with glanders, or epidemiologically linked to a confirmed or suspected *outbreak* of glanders, or giving cause for suspicion of previous contact with *B. mallei.*

For the purpose of the *Terrestrial Code*, the *infective period* of *B. mallei* in equids is lifelong and the *incubation period* is six months.

Standards for diagnostic tests are described in the *Terrestrial Manual*.

Article 12.10.2.

Country or zone free from infection with *B. mallei* ~~infection~~

A country or a *zone* may be considered free from *infection* with *B. mallei* when:

1) glanders ~~is~~ has been a *notifiable disease* in the entire country for at least the past three years;

2) ~~either:~~

   a) there has been no *case* ~~*outbreak* and no evidence~~ of *infection* with *B. mallei* ~~in equids~~ during the past three years ~~following the destruction of the last *case*; or~~

   b) ~~no evidence of *infection* with *B. mallei* has been found during the past six months following the destruction of the last *case*; and there is~~ a *surveillance* programme ~~in place demonstrating the absence of *infection*~~ in accordance with Article 12.10.8. has demonstrated no evidence of infection with *B. mallei* in the past 12 months;

~~and~~

3) imports of equids and their germplasm into the country or *zone* are carried out in accordance with this chapter.

Article 12.10.3.

Recovery of free status

When a *case* is detected in a previously free country or *zone*, freedom from *infection* with *B. mallei* can be regained after the following:

1) a standstill of movements of equids and their germplasm from *establishments* ~~affected~~ infected or suspected of being ~~affected~~ infected has been imposed until the destruction of the last *case*;

2) an epidemiological investigation (trace-back, trace-forward), including ~~investigations~~ to determine the likely source of the *outbreak,* ~~have~~ has been carried out;

3) a *stamping-out policy,* which includes at least the destruction of all infected equids and cleansing and *disinfection* of the ~~affected~~ infected *establishments,* has been applied;

4) increased *surveillance* in accordance with Article 12.10.8. has been carried out and has demonstrated ~~not detected any~~ no evidence of *infection* in the six months after *stamping-out* and during that period measures have been in place to control the movement of equids;

~~5) measures are in place to control the movement of equids to prevent the spread of *B. mallei*.~~

When the measures above are not carried out, Article 12.10.2. applies.

Article 12.10.4.

Recommendations for importation of equids from countries or zones free from infection with *B. mallei* ~~infection~~

Veterinary Authorities should require the presentation of an *international veterinary certificate* attesting that the equid:

1) showed no clinical signs of glanders on the day of shipment;

2) either:

   a) was kept for six months prior to shipment, or since birth, in a ~~the *exporting* country~~ or *zone* free from infection with *B. mallei*; or

   b) was imported in accordance with Article 12.10.5., kept in an *establishment* in the *exporting country* for at least 30 days and then ~~was~~ subjected to a ~~prescribed~~ test with negative result ~~on a sample taken during the 10 days prior to shipment~~.

Article 12.10.5.

Recommendations for importation of equids from countries or zones ~~considered~~ not free from infection~~ed~~ with *B. mallei*

Veterinary Authorities should require the presentation of an *international veterinary certificate* attesting that the equid:

1) showed no clinical signs of glanders on the day of shipment;

2) was kept for six months prior to shipment, or since birth, in an *establishment* where no *case* of glanders was reported during the ~~six~~ 12 months prior to shipment;

3) was isolated and subjected to two ~~a prescribed~~ tests, with negative results on ~~a~~ samples taken ~~during the~~ 30 days apart with the second sample taken within 10 days prior to shipment.

Article 12.10.6.

Recommendations for the importation of equine semen

Veterinary Authorities of *importing countries* should require the presentation of an *international veterinary certificate* attesting that:

1) the donor males ~~animals~~:

   a) showed no clinical signs of glanders on the day of collection ~~and for the following 21 days~~;

   b) were examined clinically for signs of orchitis, with negative results.~~were kept continuously:~~

      ~~i) either for a period of at least 21 days prior to, and for until at least 21 days after, the collection in a country or a *zone* free from *infection* with *B. mallei*, or~~

      ~~ii) for at least six months prior to the collection of the semen and during the collection in an *establishment* or *artificial insemination centre* free from *infection* with *B. mallei* and were subjected to a prescribed test, with a negative result on a sample taken between 21 and 30 days before the collection, or in the case of frozen semen between 21 and 30 days after the collection;~~

2) the semen was collected, processed and stored in accordance with the relevant recommendations in Chapter 4.5. and Articles 4.6.5. to 4.6.7.

Article 12.10.7.

Recommendations for the importation of *in vivo* derived equine embryos

Veterinary Authorities of *importing countries* should require the presentation of an *international veterinary certificate* attesting that:

1) the donor females ~~animals:~~

   ~~a)~~ showed no clinical signs of glanders on the day of collection ~~and for the following 21 days~~;

   ~~b) were kept continuously:~~

      ~~i) either for a period of at least 21 days before, and for until at least 21 days after, the day of collection of the embryos in a country or a *zone* free from *infection* with *B. mallei*, or~~

      ~~ii) for at least six months prior to the collection and during the collection in an *establishment* free from *infection* with *B. mallei* and were subjected to a prescribed test, with a negative result on a sample taken between 21 and 30 days before the collection, or in the case of frozen embryos, between 21 and 30 days after the collection;~~

2) the embryos were collected, processed and stored in accordance with the relevant recommendations in Chapters 4.7. and 4.9.~~, as relevant~~;

3) semen used to fertilise the oocytes complies with the recommendations in Article 12.10.6.

Article 12.10.8.

Surveillance

The purpose of *surveillance* is to determine the status of a country or a *zone* with respect to *infection* with *B. mallei*.

Surveillance should be carried out in accordance with Chapter 1.4.

Populations of *captive wild*, *feral* and *wild* equids should be included in the *surveillance* programme, for example through testing of road kill or of equids culled as part of population control measures.

Clinical *surveillance* aims at detecting signs of glanders by close physical examination of susceptible animals. Clinical inspection is an important component of *surveillance* contributing to the desired level of confidence of detection of *disease*, ~~if~~ so long as a sufficiently large number of clinically susceptible animals is examined. Laboratory investigations should be conducted on all suspected *cases*.

Systematic pathological *surveillance* is an effective approach for glanders and should be conducted on dead equids on farm, at *slaughterhouses/abattoirs* and establishments for the disposal of carcasses of equids. Suspicious pathological findings should be confirmed by agent identification and isolates should be typed.

When conducting serological *surveillance* repeated testing of the equine population is necessary to reach an acceptable level of confidence.

Clinical examination and laboratory testing should be applied to clarify the status of suspects detected by either of these complementary diagnostic approaches. Laboratory testing and necropsy may contribute to confirm clinical suspicion, while clinical examination may contribute to confirmation of positive serology.

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